SONY

3-786-777-21 (1)

Compact Disc Player

Operating Instructions

COMPACT DISC DIGITAL AUDIO

CDP-X7ESD

© 1989 by Sony Corporation

For the Customers in the United States

Owner's Record

The model and serial numbers are located at the rear. Record the serial number in the spece provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CDP-X7ESD Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful :

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

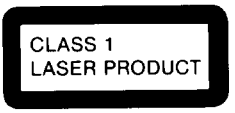
Table of Contents

Precautions	4
Before use (Transportation screw)	5
Installation	5
Connections	6
Location and function of controls	10
Playing a disc	12
Adjusting the volume	12
Time display during play	13
Information display	14
Location and function of controls (The remote commander)	16
Fade-in/Fade-out	18
Single play	19
Shuffle play	20
Program play	21
Repeat play	24
On custom files	25
Program bank memory	26
Custom index memory	28
Maintenance	31
Specifications	Back cover
Troubleshooting guide	

Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.



This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

Precautions

On safety

- Before operating the unit, be sure that the operating voltage of your unit is identical with that of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it will not be used for a long time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- The nameplate indicating operating voltage, power consumption, etc. is located on the rear of the unit.
- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.

On operation

When the unit is not used, turn the power off, to conserve energy and to extend the useful life of your unit.

Important

Since the CD system boasts a wide dynamic range, the peaks of high level inputs are recorded with high fidelity, and the noise level is very low.
Do not turn up the volume while listening to a portion with no audio signals or very low level inputs. If you do, the speakers may be damaged when a peak level portion is played.

For the customers in the USA

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

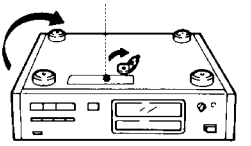
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

Before Use (Transportation Screw)

Before starting any operation, be sure to release the transportation screw (for protection of the laser pickup and internal mechanism) located on the bottom of the unit. Turn this screw in the direction of the arrow, following the Caution Sheet attached to the bottom plate. To release the transportation screw, open the cap and turn the screw counterclockwise 180 degrees **using the provided screwdriver.** Be careful not to turn the screw too far, as it could damage the internal mechanism or cause a malfunction. Before transporting this unit, tighten the screw firmly.

When rotating the screw, be sure to place the unit upside down.

Caution Sheet (on the bottom plate)



Installation

Note on Installation

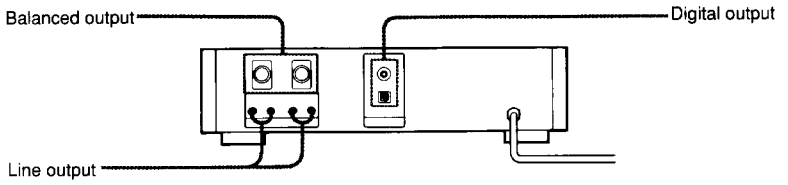
Place the unit in a location with adequate air circulation to prevent internal heat build-up in the unit.
Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.

Do not install the unit:
— near heat sources such as radiators or air ducts.
— in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.

On moisture condensation
If the player is brought directly from a cold to a warm location, or is placed in a very damp room moisture may condense on the lens inside the unit.
Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour until the moisture evaporates.

Connections

Before Making Connections



Balanced output

As it is hardly affected by external noise, the balanced output connector is utilised by professionals in studios and the broadcasting stations. Connect the unit to an amplifier having a balanced input jack. For the connection, use cannon connectors XLR-3-32 or equivalent.
Pin assignment of the connectors are as follows; 1: GND, 2: COLD, 3: HOT.

Digital output

The music signal remains digital when transported, thus the information does not deteriorate. Use the digital output connection when you connect the unit to an amplifier with a digital input or D/A converter.
When you connect a unit using a coaxial digital connecting cord, use the digital connecting cord VMC-1ES (optional). When you connect using optical digital connecting cord, use the audio optical cable POC-15 (optional).

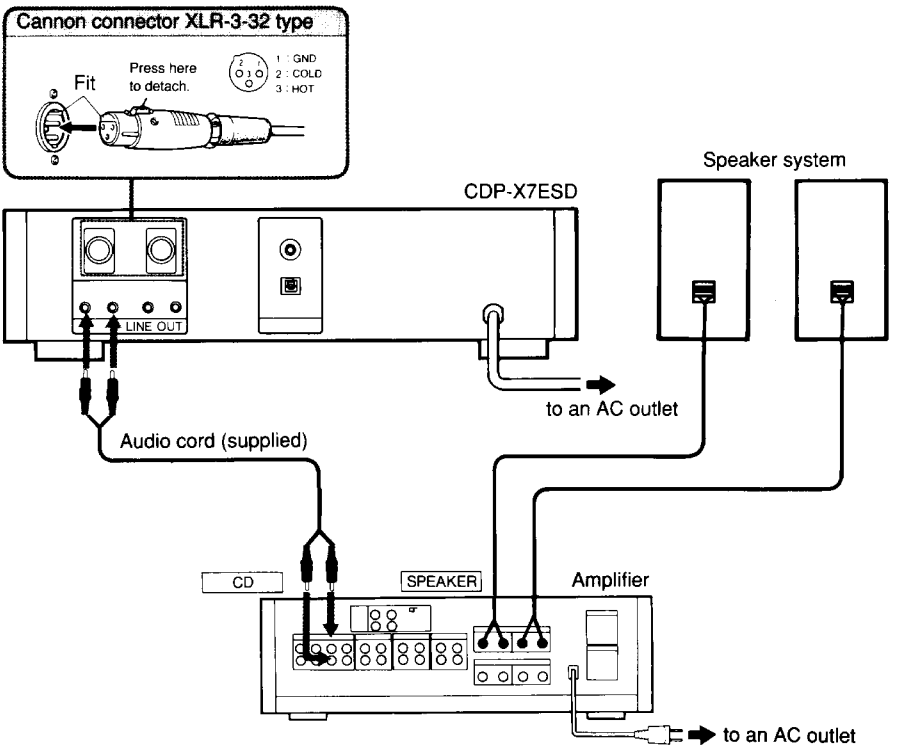
Line output

Use the line output jacks when connecting this unit for analog use.
Normally make the connection to the FIXED jack. If you use the VARIABLE jack to connect a power amplifier, you can adjust the volume with the LINE OUT/PHONE LEVEL control on the front panel. The LINE OUT/PHONE LEVEL control not only adjusts the headphones output but also the output level of of the variable LINE OUT jack. Accordingly, you can make the level of this unit correspond to that of other music sources. Be careful when recording as the recording level will change when you use the LINE OUT/PHONE LEVEL control.

Notes on Connection

- Turn off the power of each unit before making connections.
- Connect the AC power cord last.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- Cord plugs and jacks are color coded: Red plugs and jacks are for the right channel (R) and white ones for the left channel (L).

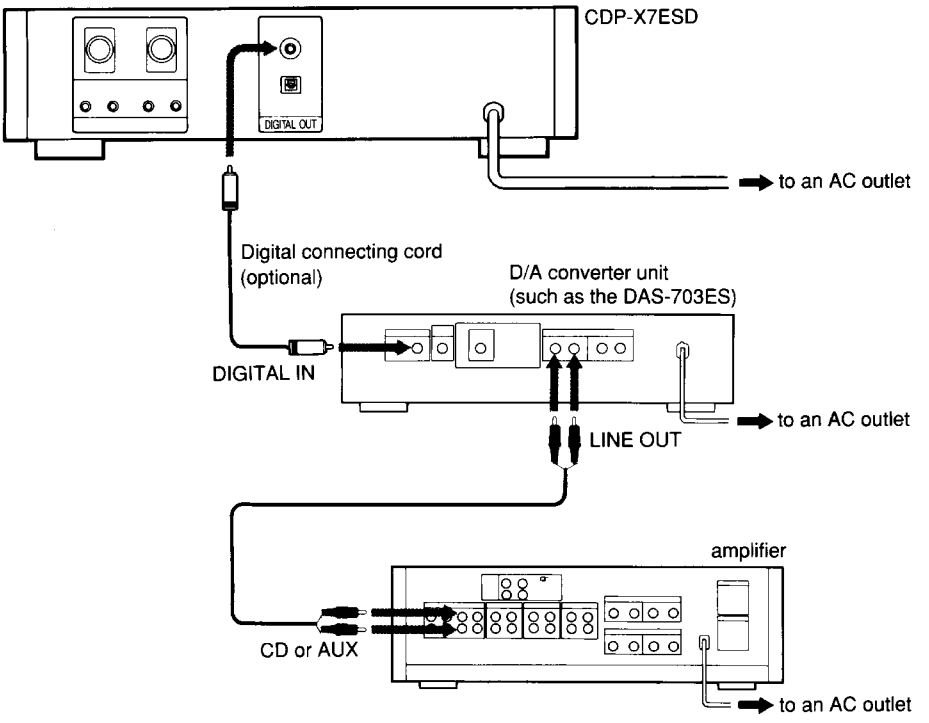
Connecting the Unit with Analog Equipment



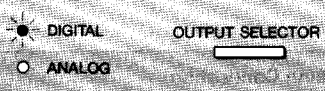
After Making Connection

Press the OUTPUT SELECTOR on the front panel of the unit to light the ANALOG lamp. The signals will be output to the analog jack.

Connecting the Unit with Digital Equipment—Coaxial Digital Out

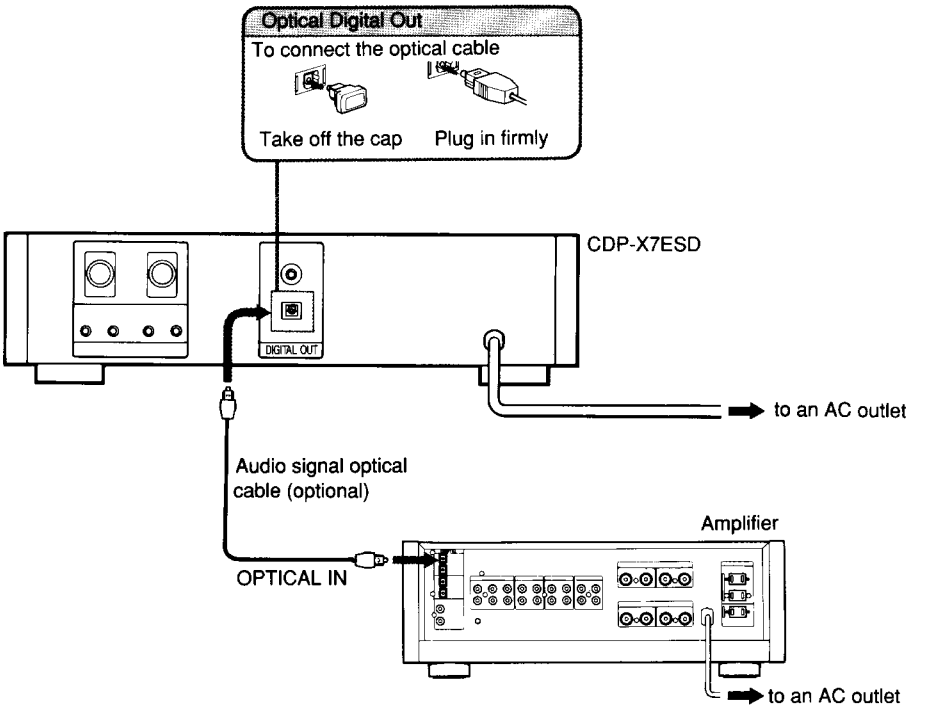


After Making Connection
Press the OUTPUT SELECTOR on the front panel of the unit to light the DIGITAL lamp. The signals will be output to the digital jack.



When connecting to the digital output
You cannot use the fade in/fade out function (page 18).

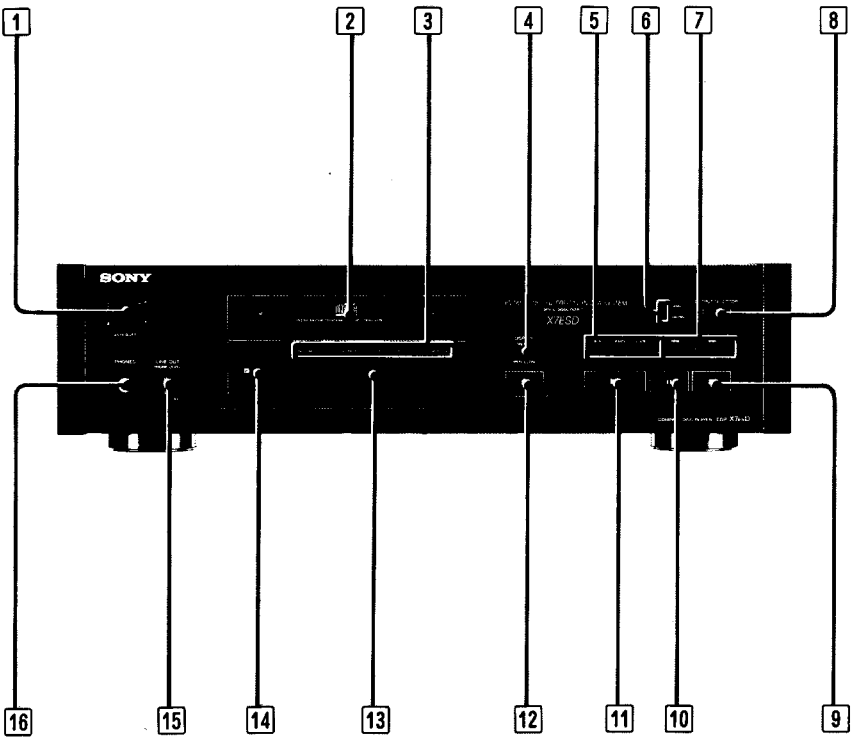
Connecting the Unit with Digital Equipment—Optical Digital Out



After Making connection

Press the OUTPUT SELECTOR on the front panel of the unit to light the DIGITAL lamp. The signals will be output to the digital jack.

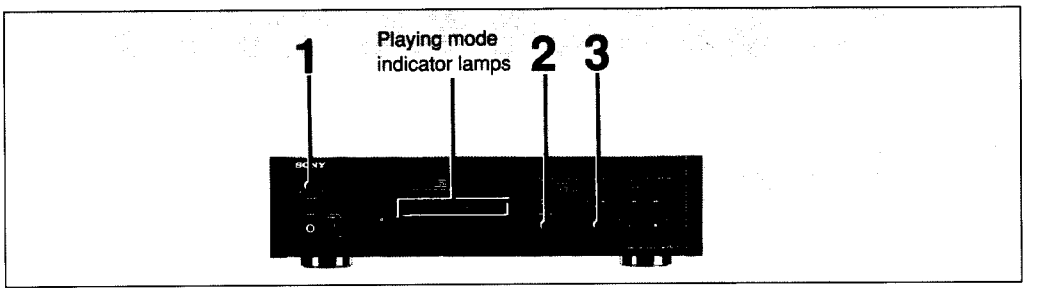
Location and Function of Controls

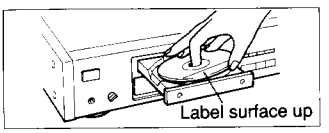


Name of control	Operation
[1] **POWER switch**	**Depress to turn on the power**
[2] **Disc table**	Place a disc here.
[3] **Playing mode indicator lamps**	**The lamp of the current play mode lights up.**
[4] **DISPLAY ON/OFF button**	**Press to switch off the display.** Press once more to display the indications again.
[5] **⏮AMS* ⏭ buttons**	**Use these buttons to designate the selection number to be played.** During play, each time the ⏮ button is pressed, the beginning of the current selection, then the beginning of the previous selection is located in sequence. (Each time the ⏭ button is pressed, the beginning of the next selection is located in the same way.) When the ⏮ or ⏭ button is kept pressed, the selections are skipped continuously.
[6] **Output indicator lamp**	**The lamp of the output you chose with the OUTPUT SELECTOR lights up.**
[7] **◀◀ ▶▶ (manual search) buttons**	**Use these buttons to play from the desired point of a selection.** To go back, keep ◀◀ pressed, and to go ahead, keep ▶▶ pressed. When the ◀◀ or ▶▶ button is pressed in the pause mode, a quick search operation can be activated.
[8] **OUTPUT SELECTOR button**	**Select analog output or digital output with this selector.**
[9] **■ (stop) button**	**Press to stop the play.**
[10] **II (pause) button**	**Press to stop the play momentarily.** To restart playing, press this button again.
[11] **▶ (play) button**	**Press to start the play.**
[12] **⏏ OPEN/CLOSE button**	**Press to open or close the disc table.**
[13] **Display window**	**The current play mode, the track number of the selection, and the elapsed playing time of the selection, etc., are displayed here.**
[14] **Remote sensor**	**The signals from the remote commander are received here.**
[15] **LINE OUT/PHONE LEVEL (volume) control**	**Use this control to adjust the level of headphones and the output level of the line out (VARIABLE).**
[16] **PHONES jack**	**Connect headphones here.**

* AMS is an abbreviation of Automatic Music Sensor.

Playing a Disc





1 Depress the POWER switch to ON.
The playing mode indicator lights up. If an indicator other than CONTINUE/SINGLE lights up, press the CONTINUE button on the remote commander.

2 Press ⏏ button and place a disc on the disc table.

3 Press ► button.
The compartment closes and play begins from the beginning of the disc.

Adjusting the Volume

When you use the digital output or balanced output connection or make the connection to the FIXED jack for analog use

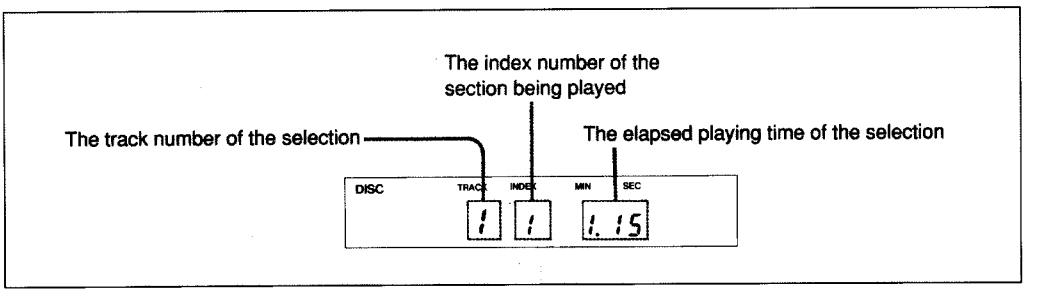
Adjust the volume with the volume control of an amplifier. You cannot control the volume with the LINE OUT/PHONE LEVEL control on the front panel.

When you make the connection to the VARIABLE side for analog use

You can control the volume with the LINE OUT/PHONE LEVEL control on the front panel.

Note on 3 inch CD
You can play a 3 inch CD on the inside circle of the table. Do not put a normal CD (size of 5 inch) over it.

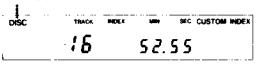
Time Display during Play



To display the total number of selections and the total playing time

After a disc is placed on the disc table, and the ⏏ button is pressed to close the disc table, the total number of selections (tracks) on the disc and the total playing time will be displayed for several seconds.

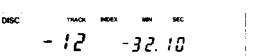
"DISC" appears when a disc is inserted.



To display time remaining until the end of the disc

During play, press the TIME button on the remote commander. When this button is pressed once, the remaining time of the currently playing selection is displayed.

When it is pressed again, the total remaining time until the end of the disc will be displayed.



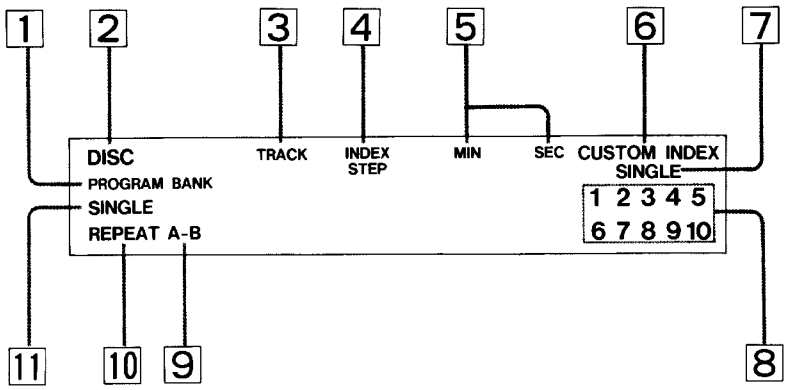
Press the TIME button once more to resume the normal display.

To switch off the display

Press DISPLAY ON/OFF once.
The display will be switched off even during playback.

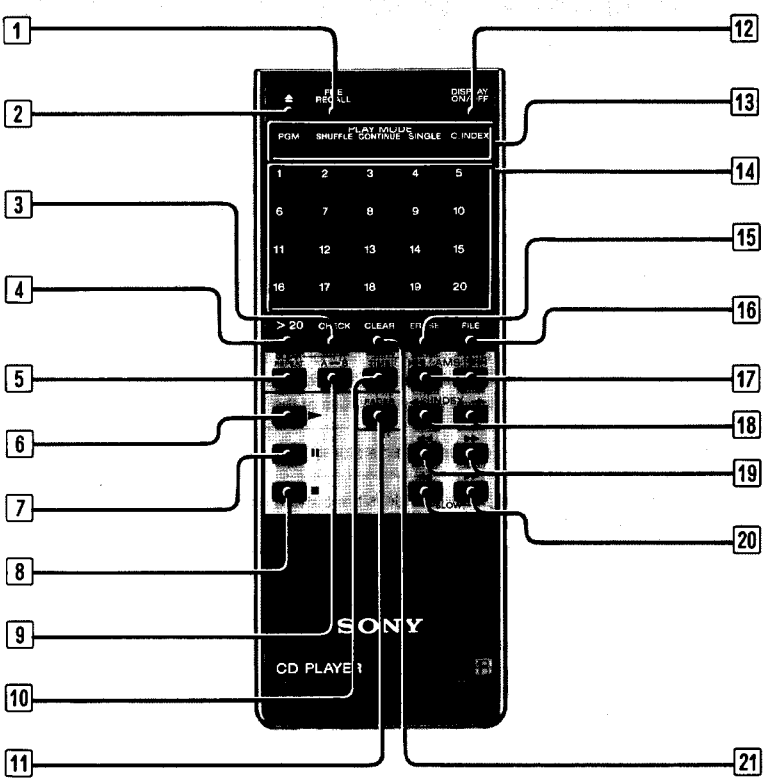
Press once more to display the indications again.

Information Display



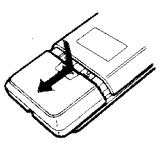
Indication	Meaning
[1] PROGRAM BANK	The program bank is stored.
[2] DISC	A disc is inserted.
[3] TRACK	The track number of the section is displayed.
[4] INDEX	While "INDEX" is lit, the index number of the selection being played is displayed. When the Custom Index is stored, the custom index number is displayed while the Custom Index is played.
STEP	During program play, "STEP" is lit and the program number of the selection is displayed.
[5] MIN/SEC	The elapsed playing time of the selection, the remaining time of the currently playing selection, and the total remaining time until the end of the disc are displayed with each press of the TIME button.
[6] CUSTOM INDEX	The custom index is stored, and the playing mode is the custom index mode.
[7] CUSTOM INDEX SINGLE	The playing mode is the custom index single mode.
[8] 1 ~ 10	The custom index number is displayed while custom index is played.
[9] REPEAT A-B	A ↔ B repeat is being played.
[10] REPEAT	The unit is in the repeat play mode.
[11] SINGLE	The unit is in the single play mode.

Location and Function of Controls (The Remote



Battery installation

1



2 Insert two size AA (R6) batteries as indicated, and then close the battery compartment cover.

Battery replacement
The service life of the batteries is about six months in normal operation. When the distance from which remote control operation is possible becomes shorter, replace both batteries with new ones.

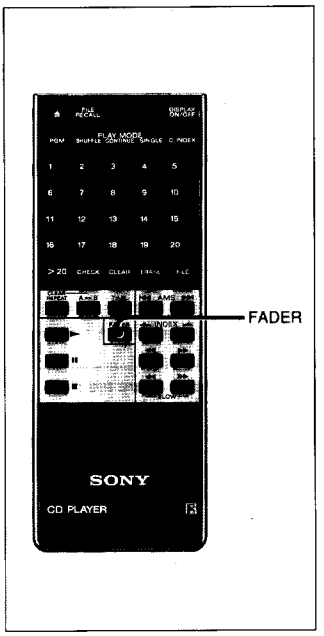
Note on remote control operation
Make sure that the remote control signal sensor is not subject to direct sunlight or to lighting of high intensity, as this may cause malfunctioning or make remote control operation impossible.

What is an index?
On some discs, index numbers divide the selections into sections, such as movements in a symphony. The index numbers help you find particular sections.

[1] **FILE RECALL button**	Press to recall the program bank.
[2] **⏏ (open/close) button**	Press to open or close the disc table.
[3] **CHECK (program check) button**	Press to check the programmed contents. Use this button to cancel a custom index memory.
[4] **>20 (over 20 button)**	Press to select a selection having a track number over 20. Then press one of the 1 to 10 buttons. In this case, the 10 button corresponds to "0". <Example> To select the 22nd selection: Press >20, then 2 and 2. To select the 30th selection: Press >20, then 3 and 10.
[5] **REPEAT CLEAR (repeat/ repeat clear) button**	Press to play the disc repeatedly. Press again to release repeat play.
[6] **▶ (play) button**	Press to start the play.
[7] **⏸ (pause) button**	Press to stop the play momentarily. To restart playing, press this button again.
[8] **■ (stop) button**	Press to stop the play.
[9] **A ↔ B repeat button**	Press when the required start point and stop point for repeat play are reached.
[10] **TIME button**	Press to change the display.
[11] **FADER (fade in/fade out) button**	Press to have the play fade in or fade out.
[12] **DISPLAY ON/OFF button**	Press to turn off all the indications. Press to display the indications again.
[13] **PLAY MODE buttons**	Press to select the desired play mode. PGM (program play) button SHUFFLE (shuffle play) button CONTINUE (continuous play) button SINGLE (single play) button C. INDEX (custom index mode) button
[14] **Numeric buttons**	Press to designate the desired selection.
[15] **ERASE (memory erase) button**	Press to cancel a program bank or a custom index memory.
[16] **FILE (custom file) button**	Press to store a program or a custom index.
[17] **⏮ AMS ⏭ buttons**	Use these buttons to designate the selection number to be played.
[18] **←INDEX→ buttons**	Press to select the desired index number or a custom index.
[19] **◀◀ ▶▶ (manual search) buttons**	Use these buttons to play from the desired point of a selection.
[20] **◀◀ ▶▶ SLOW (low speed manual search) buttons**	Press to search at a lower speed.
[21] **CLEAR (program clear) button**	Press to cancel a programmed selection.

Fade-in/Fade-out

The fade-in function starts the play by increasing the volume gradually, while the fade-out function decreases the volume gradually and pauses playback when the volume reaches null. This function is convenient for editing your own tapes.



Fade-out

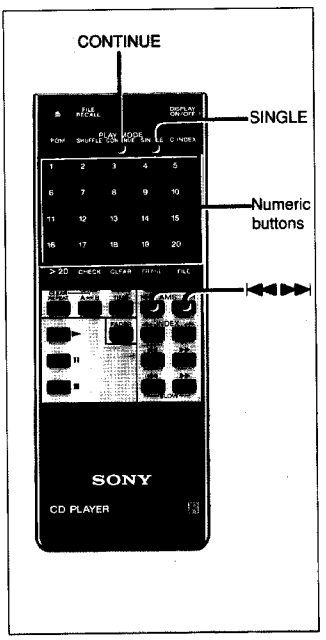
Press FADER when you want to start fading out. Play fades out for about 5 seconds and enters the pause mode.

Fade-in

Press FADER to restart the play fading in.
Play fades in for about 5 seconds.

Single Play

You can play only a single selection.
When the currently playing selection is finished, the player enters the stop mode automatically.



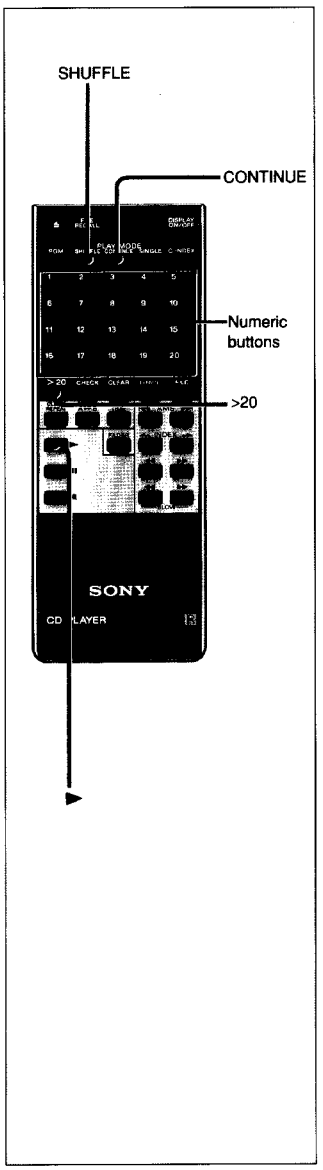
During play, press the SINGLE button so that the SINGLE indicator appears in the display window.
In this mode, when the currently playing selection is finished, the player enters the stop mode automatically.

To play another selection
Select the desired selection by using the ⏮ / ⏭ or numeric buttons and >20 button.

To resume continuous play
Press the CONTINUE button.

Shuffle Play

"Shuffle" refers to the shuffling of cards.
In the CDP-X7ESD, "shuffle" play allows each selection to be played once in a random order. You can also play only the desired selections in a random order.



To Activate Shuffle Play of the Entire Disc

1 Press the SHUFFLE button.

2 Press the ► button.

To resume continuous play
Press the CONTINUE button.

What is this indication?
In Shuffle play mode, while the selection to be played next is being selected (by the incorporated microcomputer), a rotating indicator, as shown on the right, will appear in the TRACK display.

To check the remaining time of the current selection
Press the TIME button once.
Press it again to resume the normal display.

When the SHUFFLE button is pressed during play
Shuffle play mode is activated from the selection currently being played, and the next selection will be selected randomly.

To Activate Shuffle Play of Only the Required Selections (Delete Shuffle Play)

1 Press the SHUFFLE button.

2 Designate the track numbers of the selections not to be played using the numeric buttons and >20 button.

3 Press the ► button.

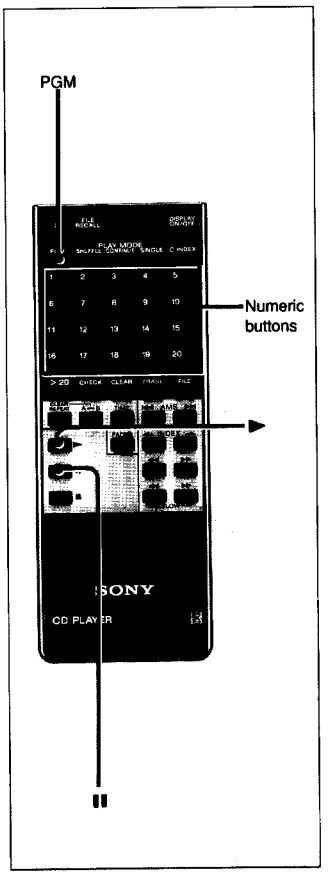
When Delete Shuffle play is finished
The deleted selections are restored, and the player enters standby mode for shuffle play of the entire disc.

To delete a selection during shuffle play
Any selection but the current selection can be deleted during play.

To restore the deleted selections
Press the numeric button(s) corresponding to the selection to be restored.
The selection number and "on" will be displayed.

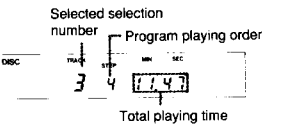
Program Play

You can play only the required selections in the required order.
You can also adjust the total playing time of the program.



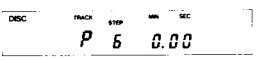
1 Press the PGM button.

2 Designate the track numbers of the required selections in the desired order for programming.



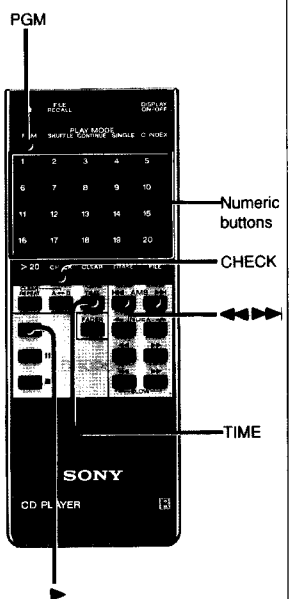
3 Press the ► button.
Play starts from the first programmed selection.

To insert a "pause" in the program
Except for the first programmed selection, a "pause" can also be included in the program. When a "pause" is included in the program, a "pause" is also counted as a selection (within the 20 selections).
During programming, press the ❚❚ button instead of the numeric button(s). (At this time, the total playing time display returns to "0.00".)
This function is useful for reversing the tape during recording.
During program play, a "pause" cannot be added to the program.



"P" shows that a "pause" has been programmed.

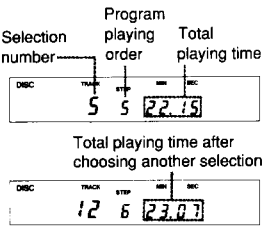
Spacing between selections during program play
The blank section between selections is adjusted to about 1 second automatically.
However, if the programmed selections follow in numerical order (such as the 4th selection, then the 5th selection), the original blank section is left as it is.



Program Edit

You can adjust the total playing time of the program.
This function is convenient for editing tapes.

1 Choose selection with the ⏮ or ⏭ button.
Check the total playing time. If the selection is not satisfactory, choose another selection with ⏮ or ⏭ button again.



2 If satisfactory, press the PGM button.
The selection will be stored.

3 Repeat steps 1 and 2.

4 Press the ► button to play the program.

To add another selections during program play
Until the total number of programmed selections reaches 20, you can add any desired selection to the current program.

To Check the Programmed Contents

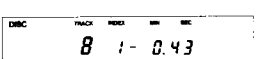
Press the CHECK button.
Each time the CHECK button is pressed, the programmed selections are displayed in the programmed order.
Checking the programmed contents is also possible during program play by pressing the CHECK button.
When checking the contents of a program (programming order), the "END" indicator appears at the end of the program.

To return to the normal display
Press the CHECK button while the "END" indicator is displayed.

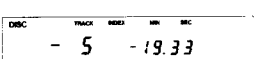
To display the remaining time of the program

Press the TIME button during play.

When the TIME button is pressed once, the remaining time of the current selection is displayed.

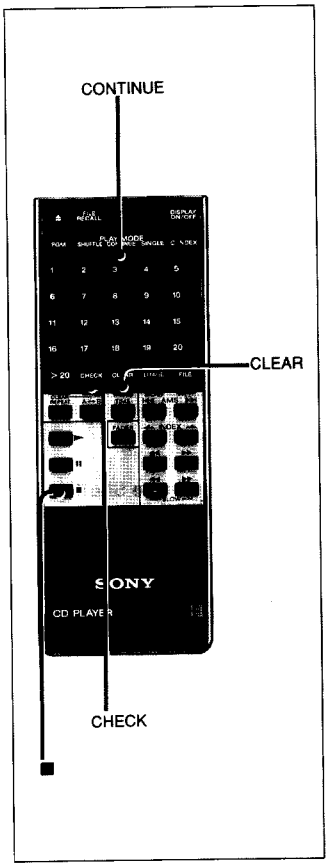


When it is pressed again, the remaining time of the entire program and the number of selections programmed after that are displayed.



"----" appears when a selection having a selection number higher than 20 is programmed, or when the total program playing time exceeds 99 minutes 59 seconds.

To resume the original display, press the TIME button once again.



To Perform Programming Again

To reprogram from the beginning

1 Press the ■ (stop) button.
Before starting program play, press the ■ button once. After program play has been started, press it twice.

2 Perform a new programming operation from the beginning.

To reprogram from the middle of the current programming

1 Press the CLEAR button.
Each time the CLEAR button is pressed, the last programmed selection is cancelled.
Press it until the selection to be left in the program appears.

2 Perform the programming operation from that point.

To delete a selection from the program

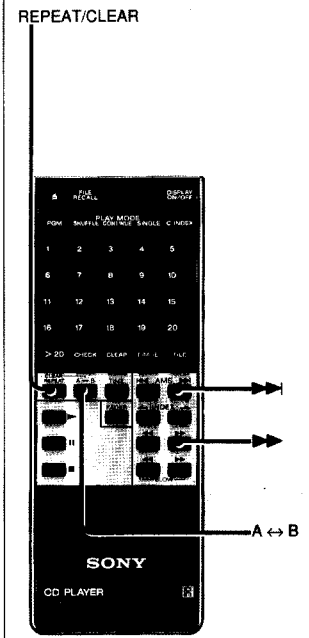
1 Press the CHECK button repeatedly until the selection to be deleted apperas.

2 While the selection number to be deleted appears in the display, press the CLEAR button.
The displayed selection number is cancelled, and the subsequent selections will be moved up sequentially.

To Return the Normal Play

Press CONTINUE.

Repeat Play



You can repeat the entire disc, a single selection, all the programmed selections, shuffle play, A ↔ B repeat play (playing only a designated portion repeatedly), or play between two custom indexes.

During play, press the REPEAT button. The disc will be played repeatedly in the play mode currently selected.

Play mode	Repeated selections
Continuous play	Entire disc
Single play	Current selection
Program play	All programmed selections in the programmed order
Shuffle play	All selections in a random order (The selection order is "shuffled" each time selection is finished playing.)
Custom index play	Between the specific custom indexes

To release repeat play
Press the REPEAT/CLEAR button again.

When the REPEAT/CLEAR button is pressed during Delete Shuffle play
When all of the selections have finished playing once in Delete Shuffle play mode, the player enters the shuffle play mode for entire disc.

A ↔ B Repeat

1 During play, press the A ↔ B button when the desired start point (point A) for repeat play is reached.

2 Continue play as it is, or press the ▶▶| or ▶▶ button to advance to the stop-point (point B) for repeat play, and press the A ↔ B button again.
Play starts automatically from the designated point A, and the portion between points A and B will be played repeatedly.

To release A ↔ B (portion) repeat play
Press the REPEAT/CLEAR button again.

Going back to the desired start point from anywhere on the disc
When only point A is designated for A ↔ B repeat play, play can be started from point A from anywhere on a disc.
1. During play, when the point designated as to be the play start point is reached, press the A ↔ B button to store point A.
2. Continue play as it is, and press the ▶ button to go back to the point A. The player returns to point A, and play restarts from that point.

After A ↔ B repeat play has been designated, play returns to point A whenever the ▶ button is pressed.

On Custom Files

The CDP-X7ESD incorporates a memory in which you can store two types of information called "custom files".

The Custom Files You Can Store in Memory

Program Bank	A programmed playing order you store in memory for a disc, so that the disc can be played always in a fixed order.
Custom Index	Index point you can assign anywhere you want on a disc.

How Many Discs Can Be Assigned Custom Files?

You can assign custom files to up to 227 discs.
When Program Bank and Custom Index are memorized at the same time, it takes two discs' memory.

Memory Backup for the Custom Files

Custom files, once memorized, are retained in the compact disc player's memory for approximately 1 month without AC power supply.

Where Is the Program Bank Stored?

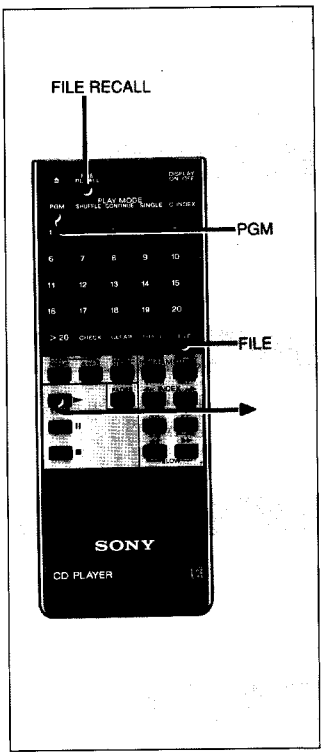
Actually, the Program Bank is stored in the memory incorporated in the CDP-X7ESD. Therefore, when a disc with a program bank assigned is loaded in another CD player, it is not possible to play it as programmed.

When There Is No Space for a Program Bank or Custom Index Memory

The "FULL" indication appears in the display. In this case, cancel a Program Bank or Custom Index for another disc, so that the new program can be stored in memory.

Program Bank Memory

You can create a "Program Bank" in which the desired selections on a disc are played in the desired order each time the disc is played.
After programming is completed, the program can be stored in the memory of the CDP-X7ESD.
One Program Bank can be assigned to a disc.

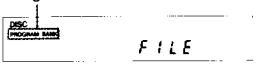


To Store the Program Bank

1 Perform the programming operation.
(See page 21.)

2 Press the FILE button.

Lights



The Program Bank has been stored in memory.

To Play as Assigned in a Program Bank

Before inserting a disc

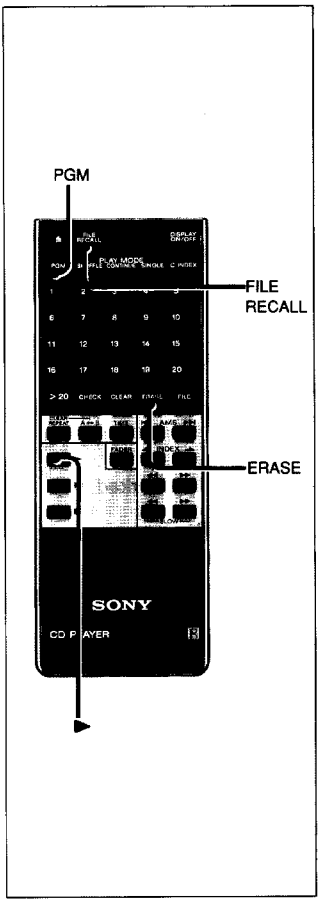
1 Press the PGM button.
The corresponding lamp lights up.

2 Place a disc on the disc table and press the ► button.
The Program Bank is recalled and the play starts.

When a disc is already inserted

1 Press the FILE RECALL button to recall the program bank.

2 Press the ► button.



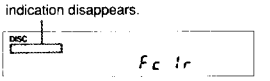
To Cancel a Program Bank

1 **Load the disc for which the Program Bank is to be cancelled in the player.**

2 **Press the FILE RECALL button to recall the program bank.**

3 **Press the ERASE button.**

The "PROGRAM BANK" indication disappears.



To Play the Disc in Other than the Program Bank Mode

1 **Set the player to the desired play mode, then place the disc on the disc table.**

2 **Press the ► button to initiate play.**
The disc will be played in the selected mode.

To Play the Disc with a Different Program

1 **Place the disc.**

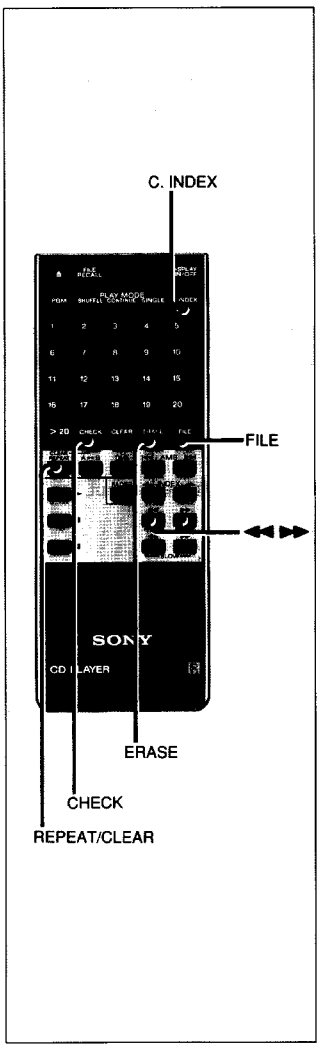
2 **Press the PGM button.**
The previously assigned Program Bank memory will be read out.

3 **Press the ■ button and enter a new program.**

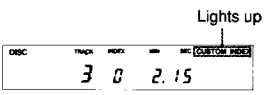
4 **Press the ► button to initiate play.**
The disc will be played in the newly programmed order, but the stored Program Bank will not be cancelled.

Custom Index Memory

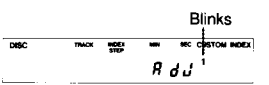
You can assign index marks at the desired points on a disc. With these "custom index" marks, you can easily access the desired points during play, or the section between Custom Index points can be played repeatedly at any required time.
There are two play modes for Custom Index play; continuous play and single play. In the Custom Index play mode, each time the C.INDEX button is pressed, continuous play and single play (to the next index point) change alternately.



1 Press C.INDEX button during play.
The corresponding lamp lights up. "CUSTOM INDEX" is displayed in the display window.

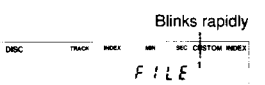


2 Press the FILE button when the desired point to be marked is reached during play.
A 3-second portion from the point where the FILE button was pressed will be played repeatedly. (This is called "rehearsal play".)



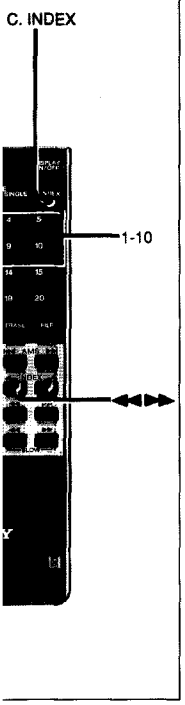
3 Adjust the play-start point (for rehearsal play) using the ◀◀ or ▶▶ button.
When the ▶▶ button is pressed, the play-start position for rehearsal play is moved forward slightly, and when the ◀◀ button is pressed, the play-start position is moved backward slightly. (When a button is pressed once, the play-start position is moved by about 1/7 seconds. Use this as a reference.)

4 Press the FILE button.
The "Custom Index" point is marked at the play-start position for rehearsal play.



5 Repeat the previous steps, from 2 to 4 to mark other Custom Index points. There can be a maximum of 10 Custom Index points.

When the FILE button is pressed in pause mode
Rehearsal play does not start, but the index is marked at the position where the FILE button was pressed.



To Play from a Desired Index Point (Custom Index Search)

Searching for an index with the numeric buttons

1 Press the C.INDEX button.
Corresponding lamp lights.

2 Press one of the 1 through 10 buttons.
Play starts from the index point corresponding to the button pressed.
Each time an index point is passed during play, the 1 through 10 indicators go out in sequence.

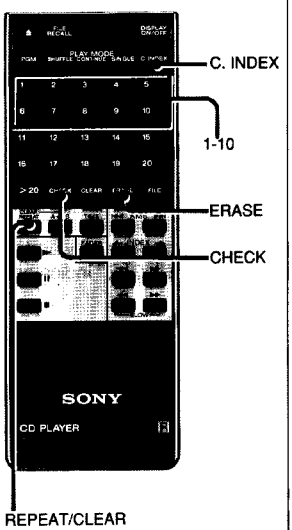
- There are two play modes for Custom Index play; continuous play and single play. When single play mode is selected, the "SINGLE" indicator is shown in the display.

Searching for an index with the ◀—▶ buttons

1 Press C. INDEX during play.
The corresponding lamp lights.

2 Search for the index point with the ◀—▶ buttons.
▶: Play begins from the next index point.
◀: The beginning of the current index portion is located.

To release Custom Index play
Press one of the four PLAY MODE buttons.



To Play the Portion between Custom Index Points Repeatedly

1 Press the C.INDEX button twice.
Custom Index single play mode is activated.
The corresponding lamp lights, and the "SINGLE" indication is displayed.

2 Press the REPEAT button.
The "REPEAT" indication is displayed.

3 Select the play-start point with the 1 to 10 buttons.
Play starts from the designated index point.
The portion between the selected index point and the following index point will be played repeatedly.

To release repeat play between two Custom Index points
Press the REPEAT/CLEAR button again.

To Cancel a Custom Index Memory

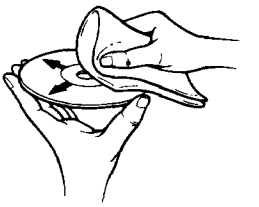
1 Press C.INDEX button.
The corresponding lamp lights up.

2 Press the CHECK button until the index to be deleted blinks in the display.

3 Press the ERASE button.
If other indexes are present after the deleted index, they will be moved up one by one.

Maintenance

Cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.



Cleaning discs
Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.

Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

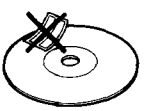
After playing, store the disc in its case.

Notes on discs
Handle the disc by its edge, and to keep the disc clean, do not touch the surface. Do not stick paper or tape.

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be considerable rise in the temperature.

This way

Not this way



Specifications

Compact Disc Player Unit

System	Compact disc digital audio system
Disc	Compact Disc
Data read system	Non-Contact optical reading (using a semiconductor laser)
Laser	GaAlAs dual hetero-diode (λ (wavelength) = 780 nm)
Spindle speed	Approx. 200 rpm – 500 rpm (CLV)
Error correction	Sony Super Strategy, Cross Interleave Reed Solomon code
Frequency response	2 – 20,000 Hz ±0.3 dB
Signal to noise ratio	More than 115 dB
Dynamic range	More than 100 dB
Harmonic distortion	Less than 0.0015% (1 kHz)
Channel separation	More than 110 dB (1kHz)
Wow and flutter	Below measurable limit
Output jacks	

LINE OUT (FIXED)	Output level 2V (at 50 kilohms) Load impedance over 10 kilohms
LINE OUT (VARIABLE)	Output level max. 2 V (at 50 kilohms) Load impedance over 50 kiohms
DIGITAL OUT (COAXIAL)	Output level 0.5 Vp-p (at 75 ohms) Load impedance 75 ohms
DIGITAL OUT (OPTICAL)	Wave length 660 nm Output level -18 dBm

General

Power requirements	AC 120 V, 60 Hz
RAM memory storage	Held for more than a month (after turning the power OFF).
Power consumption	26 watts
Dimensions (w/h/d)	470 × 125 × 375 mm (18 5/8 × 5 × 14 5/8 inches) (Including projecting parts and controls)
Weight	17 kg (37 lb)

Remote Commander (supplied)

Remote control system	Infrared control
Power requirements	3V DC (with two size AA (R6) batteries)
Dimensions	67 × 20 × 175 mm (w/h/d) (2 3/4 × 13/16 × 7 inches)
Weight	110 g (4 oz) (including batteries)

Supplied accessories

Remote commander × 1
Sony SUM-3 (NS) battery × 2
Screwdriver × 1

Design and specifications subject to change without notice.

Troubleshooting Guide

Before going through the check list below, first refer back to the connections and operating procedures.
Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Symptom	Cause	Remedy
The disc table does not close.	The disc is not placed correctly.	Place the disc correctly on the disc tray.
Play does not start.	Dirty disc.	Clean the disc.
	The disc is inserted upside down.	Insert the disc with the printed side up.
	The player is in the pause mode.	Press the ❚❚ button to release pause.
	Moisture condensation.	Leave the player turned on for approximately one hour.
Sound is not heard.	Loose connection.	Insert the plug firmly.
	Connection is incorrect.	Check the connection referring "Connections".
	The LINE OUT/PHONE LEVEL control is set to the minimum.	Turn the control clockwise.
Play does not begin from the first selection.	The player is in the PROGRAM or SHUFFLE mode.	Press CONTINUE.
The remote commander does not operate the unit.	The batteries are run down.	Replace both batteries.
	The remote commander is not pointed at the remote sensor.	Point the remote commander at the sensor.
	There is an obstacle between the remote commander and the unit.	Remove the obstacle.
	The remote commander is too far from the unit.	Move closer.
No indication appears when the POWER switch is pressed to ON.	The power cord is disconnected.	Plug it into an AC outlet firmly.

Printed in Japan